

brownish yellow; dorsal line faint and obscure, scarcely darker than the ground except dorsally on joints 10 to 13, where it is dark and distinct, its border marked by dark dots intersegmentally (approximate), and centrally on the segments (remote). Thorax darkly shaded, the lines obsolescent. Venter a shade paler with series of subventral brown dashes edging the bases of the feet. Setae short, dark; tubercles obsolete; skin granular. Later a heavy black shade overspreads the posterior two-thirds of the venter, especially posteriorly, reaching the sides and finally the dorsum of joint 13 in one larva, but leaving the feet pale outwardly. Otherwise the larva is uniformly brown, finely annulate, the few dark brown dots obscure. Some of the larvae passed another molt about Sept. 14 with width of head .9 mm., and the same coloration; but most hibernated in this stage. They began feeding again April 30.

Stage V. Head rounded, rather strongly bilobed, ashen on the face, brown flecked, a broad diffuse band on each side of the median suture and a longer parallel one up each lobe before the ocelli to vertex; width 1.1 mm. Body ochraceous brown, shaded with black ventrally on joints 9 to 13, feet pale outwardly. Segments about 30-annulate. Traces of brown dorsal and subdorsal lines and black flecks near the incisures; also blackish shaded laterally posteriorly on the segments. Spiracles black; vi on a low rounded lump, most distinct on joints 5 and 6. Tubercles minute, setae short, black.

Stage VI. Head somewhat squarely rounded, free; whitish gray, mottled with brown, a broad, diffuse, mottled dark stripe from behind ocelli and a shorter one each side of median suture; width 1.6 mm. Segments about 30-annulate, cylindrical, uniform, slender, well drawn out; anal feet projecting laterally, the plate broad rounded at the end; shields all concolorous. Wood brown, ochraceous dorsally on joints 3 to 13, a diffuse red-brown dorsal line, becoming a

bluish white bar on the large first annulet. Black crinkly addorsal dashes anteriorly and posteriorly on each segment, the posterior ones a little more lateral and a little oblique. A diffuse, sparsely pulverulent, black stig-matal and subventral shading, heaviest and covering most of the venter of joints 8 to 10, but leaving the foot of joint 10 outwardly pale. Venter sparsely black irrorate. Thoracic feet pale. Spiracles black; tubercles and setae minute.

Larvae handed me by Mr. W. D. Kearfott from his collecting box, where they had hatched in July; moth the following June. Single brooded, hibernation in Stage IV. The larvae were raised on wild cherry and apple.

FOOD OF LARVAE OF *SIMULIUM* AND *BLEPHAROCERA*.—In making sections of the larvae of *Simulium* and *Blepharocera*, in a study of the post embryonic development of these flies, I have found a peculiar obstacle in the presence in the alimentary canal of hundreds of the tiny silicious shells of diatoms. From an examination of the alimentary canal of many specimens of *Simulium* and *Blepharocera* it is apparent that diatoms constitute a large part of the food of these larvae, both of which live clinging to the smooth rock beds of swiftly flowing streams. I have mentioned, in a paper in the *Entomological News* (January, 1900) the curious fact that the fully grown larvae of *Blepharocera capitata* are covered dorsally with a close growth of diatoms. The most abundant diatom in this growth was one of the stalked *Gomphonema*. The basis of this covering of the larva's back was the gelatinous mass at the base of the stalked diatoms. Scattered upon and through this mass were individuals of *Nitzschia* and several other diatomaceous genera. The covering had a soft, felt-like appearance, grayish or brownish, and did not seem to trouble the larva. I have found a similar diatomaceous growth on the larvae of *Liponeura* and two other *Blepharocera* species in Cali-

fornia. Each larva thus has a root-garden in which it rears its favorite vegetable! Simulium, on the contrary, seems to have to find its diatoms in the open market.

Vernon L. Kellogg.

THE TRIANGLE SPIDER IN CALIFORNIA.—On November 5, 1898, Professor O. P. Jenkins of this University (Stanford) found a single triangle spider (*Hyptiotes* sp.) on its web in a cedar tree near the University. The web was nine inches long and six inches wide at its base. It had four radii and twenty-two cross threads. At about the same time Dr. Jenkins found a few other webs but was unable to capture any more of the spiders. The spider seems to be the familiar triangle spider of the East, but differs in a number of minor characters and rather markedly in size. Until more specimens are obtained, however, (and in the two years since finding the first no others have been seen) the specific identity of this *Hyptiotes* cannot be certainly determined.

Vernon L. Kellogg.

PROCEEDINGS OF THE CLUB.

14 December, 1900. The 216th meeting was held at 156 Brattle St., Mr. S. H. Scudder in the chair.

Mr. W. L. W. Field showed a moth which he had raised from a caterpillar mentioned in the Harris Correspondence and shown on pl. 3, fig. 2. The species is not yet determined.

Mr. A. P. Morse showed specimens of *Dichromorpha viridis* which he had taken at Needham. It had not before been found in eastern Massachusetts.

Mr. S. H. Scudder read a note from Mr. F. H. Sprague, announcing the capture of the same species of grasshopper in a meadow in Milton, Mass., last September. Mr. Scudder also showed a specimen of *Euptoieta claudia*, a rare butterfly in New England, captured at the border of Hartford, Conn., by Mr. S. C. Carpenter; specimens of the European *Mantis religiosa*, reared in Ithaca, N. Y., by Mr. M. V. Slingerland, from eggs received from Rochester, N. Y., where the insect has been in some way introduced, and seems fairly domiciled; a pair of wingless Acridians, recently received from Mr. T. D. A. Cockerell in New Mexico, where they were found upon *Larrea*, the twigs of which they closely resemble; the species is called *Clematodes larreae* and not only forms a new genus, but represents a new group, allied to certain tropical groups and especially the *Vilernae*; and finally, a pair of *Cyphoderris monstrosa* Uhl., the male one of the types described from Oregon more than 35 years ago, the female, hitherto unknown, from Laggan, Alberta; the striking difference between the sexes were pointed out.

Mr. R. Hayward showed a record which he had kept during the past summer of the notes of the Katydid with relation to temperature (to appear in *PSYCHE*).

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